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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/334,891	06/17/1999	GUIDO GHISOLFI	32461/GM/1P	5842

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VIA MERAVIGLI 16  
MILANO, 20123  
ITALY

EXAMINER

PATTERSON, MARC A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 05/06/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No. 09/334,891		Applicant(s) GHISOLFI, GUIDO	
Examiner Marc A Patterson		Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |                                                                                              |                                                                             |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### NEW REJECTIONS

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The phrase ‘the creased pattern not presenting breaks causing breakage’ has not been defined in the Specification.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase ‘in such small quantity that the film can be considered in recycling as foamed of only polyester material.’ Is indefinite because the phrase ‘can be’ makes it unclear whether the film is considered to be of only polyester material or not. Furthermore, by what standard is the film considered to only be of polyester material? Surely there would be disagreement as to how small the metal layer has to be for it to be considered non – existent. For purposes of examination, the phrase will be assumed to mean that the metal layer is any size.

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6. Claims 1 – 14 and 16 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Ochi et al (Japanese Patent No. 07156980) and Sumida (Japanese Patent No. 09039185).

Martin, Jr discloses a multilayer structure used for the production of milk and fruit juice containers (column 5, lines 43 – 52). The structure comprises a paperboard substrate to which is laminated a coextruded, dual layer polyester film, one surface of which is essentially crystalline and the other of which is essentially non – crystalline. The non – crystalline layer of the film, which forms the innermost layer of the container, has a significantly lower melting point than the crystalline layer, and is heat sealable (column 7, lines 16 – 50; column 8, lines 14 – 25); the crystalline layer of the film is metallized (e.g. with aluminum or lithium; this also provides gas barrier properties), and this surface may then be extrusion (hot) laminated to the substrate (column 9, lines 11 – 29); the material has creased on it a pattern suitable to develop by folding (Figure 2). Martin, Jr fails to disclose a substrate which is a polyethylene terephthalate foam.

Joosten teaches that a foamed thermoplastic is equivalent to paperboard in the fabrication of fruit juice containers (Abstract; page 6, lines 4 – 17) for the purpose of making a container for containing liquids (page 1, lines 13 – 25). Ochi et al. teach a container which is fabricated from polyethylene terephthalate foam, for the purpose of making the container recyclable (Abstract).

Hayashi teaches the use of a polyester resin foamed sheet having a density of less than 700 kg m<sup>3</sup> in the making of a laminate of foamed and non – foamed resin, for the purpose of maintaining good heat insulating properties (column 9, lines 1 – 19).

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a polyester resin foamed sheet having a

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density of less than  $700 \text{ kg m}^3$  in Roulin et al in order to maintain good heat insulating properties as taught by Hayashi.

It would therefore have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided for foamed thermoplastic rather than paperboard in the invention of Martin Jr. in order to make a container for containing liquids as taught by Joosten, and to use polyethylene terephthalate as the thermoplastic, in order to make the container recyclable as taught by Joosten.

Martin, Jr also fail to disclose a thickness of 0.2 to 3 mm. However, Martin Jr. disclose a thickness of 300 gauge (column 9, lines 5 – 10). Therefore, the claimed range of thickness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the thickness, since the thickness would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Martin, Jr. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Martin Jr. also fails to disclose a heat sealable film having a melting point from 50 to 200 degrees Celsius.

Sumida teaches a heat sealable polyester (polyethylene terephthalate) film having a melting point of 50 to 200 degrees Celsius, for the purpose of providing a layer having superior interlayer adhesive strength (Abstract – Solution).

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a heat sealable film having a melting point

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of 50 to 200 degrees Celsius in Martin Jr. in order to provide a layer having superior interlayer adhesive strength as taught by Sumida.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin, Jr (U.S. Patent No. 4,806,398) in view of Joosten (European Patent No. 232818), Ochi et al (Japanese Patent No. 07156980), Sumida (Japanese Patent No. 09039185) and The Encyclopedia of Polymer Science and Engineering. (Volume 12, page 214, 1985).

Martin Jr, Joosten, Ochi et al and Sumida disclose a multi – layer material comprising a heat – sealable film as discussed above. Martin Jr, Joosten, Ochi et al and Sumida fail to disclose a heat sealable film which is a polyethylene terephthalate – isophthalate copolymer.

The Encyclopedia of Polymer Science and Engineering (Volume 12, page 214, 1985) teaches that it is known in the art to use polyethylene terephthalate – isophthalate copolymer instead of polyethylene terephthalate as the outer layer of a heat sealable polyester film for the purpose of obtaining a film having a lower softening and melting point.

It would therefore have been obvious to one of ordinary skill in the art to use a polyethylene terephthalate – isophthalate copolymer as the outer layer of the heat sealable film in the invention of Martin , Jr. in order to obtain a package which is heat sealable at a lower temperature.

#### ANSWERS TO APPLICANT'S ARGUMENTS

8. Applicant argues, on page 5 of Paper No. 12, that amended Claim 1 overcomes the prior art of record, because the claim is now directed to a material on which the creased pattern does

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not present breaks causing breakage. However, the phrase 'the creased pattern not presenting breaks causing breakage' does not appear in the Specification (although the specification does indicate that the creased pattern does not cause breakage during folding) and therefore constitutes new matter. The 35 U.S.C. 112, second paragraph rejection of Claim 1 above is directed to amended Claim 1.

Applicant also argues, on page 5, that the presence of any material which is not polyester is excluded in Claim 1 as amended. It is assumed that by this, Applicant means that Claim 1 defines the material as being 100% polyester in every layer, because the amended claim is directed to a 'multi – layer polyester material.' However, the term 'multi – layer polyester material' is only sufficient to define one layer of the multi – layer material as containing polyester.

Applicant also argues, on page 5, that it was not known, prior to the claimed invention, that a foamed sheet of polyethylene terephthalate can be folded into a beverage – tight container along a creased pattern without breaking the container. Although Ochi et al. disclose a foamed sheet of polyethylene terephthalate which is folded into a container, Applicant argues, the container is used for hot – melt adhesive, and the adhesive possibly sealed the breaks occurring along the lines of the creased pattern. However, there is no mention of sealing of breaks in the container by Ochi et al. Furthermore, a 'beverage – tight' container is not claimed.

### *Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The

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examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.

*Marc Patterson*  
Art Unit 1772

*[Signature]*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772 4/22/02